PLANNING AND ZONING COMMISSION RECOMMENDATION

On July 26, 2011, a public hearing was held before the Planning and Zoning Commission regarding the requests described below. All members of the Commission were present except Carson Lomax, John McKenzie and Martha Shepherd.

City of High Point **Text Amendment Case 11-06**

A request by the City of High Point to amend Section 9-2-1 Definition Index, Section 9-2-2(b) Drainage and Watershed Protection, Section 9-7-1(e) Exemptions, Section 9-7-3(c) Surface Water Buffers, Section 9-7-10(d) Watershed Variances and Section 9-9-11(c) of the Development Ordinance in response to new Randleman Lake Watershed standards required by the North Carolina Division of Water Quality (DWQ).

Mr. Greg Morris presented the request and recommended approval as outlined in the staff report.

No one spoke in favor or in opposition.

The Planning & Zoning Commission recommended ***approval*** of Text Amendment Case 11-06, by a vote of 5-0.

CITY OF HIGH POINT
PLANNING AND DEVELOPMENT DEPARTMENT

STAFF REPORT
TEXT AMENDMENT CASE 11-06
Date June 28, 2011

Request	
Applicant: City of High Point	**Affected Ordinance Sections:** Sections 9-2-1 Definition Index, Section 9-2-2(b) Drainage and Watershed Protection, Section 9-7-1(e) Exemptions, Section 9-7-3(c) Surface Water Buffers, Section 9-7-10(d) Watershed Variances and Section 9-9-11(c) Minor Variances
Proposal: Amendments to the Development Ordinance in response to the new Randleman Rules	

Background

High Point has regulated its water supply watersheds for more than 20 years and its non-water supply watersheds since 2007. The purpose of this ordinance amendment is to comply with two new state watershed rules, 15A NCAC 02B .0250 Randleman Lake Water Supply Watershed: Protection and Maintenance of Existing Riparian Buffers and 15A NCAC 02B .0252 Randleman Lake Water Supply Watershed: Mitigation Program for Protection and Maintenance of Existing Riparian Buffers.

Details of Proposal

All jurisdictions in the Randleman Lake Watershed are required by the NC Division of Water Quality (DWQ) to amend their local watershed regulations to conform to new rules pertaining to surface water buffers. In response to the new rules, the Department submitted proposed local ordinance changes to DWQ on December 1, 2010. Earlier this year, DWQ returned our submission with comments, and the Department staff revised the proposal accordingly and resubmitted to DWQ for their approval. On May 13, 2011 DWQ informed the City that the local changes were in compliance with the new rules and to proceed with the local ordinance amendment process.

In summary, DWQ's new rules pertain exclusively to activities in surface water (riparian) buffers. The buffers themselves will not increase in size as they will remain 50 feet wide except for those in high density development, which have a width of 100 feet. Instead, the general intent of these rule changes is to allow administrative approval of certain activities within the buffers rather than following the variance process that requires City and possible State approval to allow certain activities. Existing development or existing activities in a buffer is exempt and not affected by this rule change.

Under the State's rules, new development and activities in the surface water buffers will be classified as:

- Exempt – e.g. pedestrian access trails less than 4 ft. wide; canoe access points that don't remove trees.
- Potentially allowable – e.g. airline activities necessary to comply with FAA requirements like radar uses; water wells other than single-family wells as long as these uses meet certain standards.
- Potentially allowable with mitigation – e.g. driveway impacts other than crossing a stream; wet detention ponds, bioretention cells and constructed wetlands in Zone 1.

Activities that are potentially allowable or potentially allowable with mitigation will require a finding by the Technical Review Committee (TRC) that there is no practical alternative to the proposed development or activity. Such a finding requires a determination that the project cannot be done with a smaller impact through a reduced footprint, by moving the project to a different location, or by some other measure. In order to obtain a finding of no practical alternative, the applicant must submit a watershed development plan with an explanation of why there is no practical alternative.

If the project is required to be mitigated, there are three avenues to do so.

- Payment to the NC Ecosystem Enhancement Fund.
- Physical restoration or enhancement of a riparian buffer.
- Donation of real property or contribution of a permanent easement.

Development in buffers that is not allowed by the new regulations or development that is allowed but does not meet the new rule standards requires a variance approval either from the City Council or the NC Environmental Management Commission, depending on the proposed development's location within the surface water buffer. A variance approval is the only method for development or activities in surface water buffers under the current rules.

Analysis

As stated, this proposed amendment will provide options for buffer encroachments and is required to comply with State rules. The dimensions of the required riparian buffers are not altered under this proposed amendment.

Recommendation

Staff recommends approval.

Required Action

Planning and Zoning Commission:

Upon making its recommendation, the Planning and Zoning Commission must place in the official record a statement of consistency with the City's Land Use Plan, and any other officially adopted plan that may be applicable. This may be done by adopting the staff's findings as written in this report, by adopting the staff's findings with additions or changes as agreed upon by the Commission, or, if the Commission is in disagreement with staff's findings, by adoption of its own statement.

City Council:

Upon rendering its decision in this case, the High Point City Council also must place in the official record a statement of consistency with the City's Land Use Plan. This may be done by adopting the staff's findings as written in this report, by adopting the staff's findings with additions or changes as agreed upon by the Council, or, if the Council is in disagreement with staff's findings, by adoption of its own statement.

In addition, the City Council must, prior to adopting or rejecting any zoning amendment, explain why it considers the action taken to be reasonable and in the public interest. In this case, staff suggests that the approval of the applicant's request is reasonable and in the public interest because: the amended ordinance will provide options and potentially streamline the process for those who wish to establish certain uses and activities within the riparian buffers in High Point. The City Council may adopt this statement, it may add to or change this statement, or, if the Council is in disagreement with the above statement it will need to formulate its own reasonableness / public interest statement.

Report Preparation

This report was prepared by Planning and Development Department staff member Gregg Morris, AICP, and reviewed by Heidi Galanti, AICP and Lee Burnette, AICP.

TEXT AMENDMENT 11-06
PROPOSED AMENDMENT TO THE CITY OF HIGH POINT
DEVELOPMENT ORDINANCE

(This text amendment amends the Development Ordinance in response to 15A NCAC 02B .0250, Randleman Lake Water Supply Watershed: Protection and Maintenance of Existing Riparian Buffers and 15A NCAC 02B .0250, Randleman Lake Water Supply Watershed: Mitigation Program for Protection and Maintenance of Existing Riparian Buffers)

SECTION 1.
Part 1.
Section 9-2-1, entitled *Definition Index*, shall be amended to add **Channel, Ditch, Ephemeral Stream, Intermittent Stream, Modified Natural Stream, Perennial Stream, Perennial Waterbody** and **Surface Waters** (which shall be incorporated alphabetically).

Part 2.
Section 9-2-2(b), entitled *Drainage and Watershed Protection,* shall be amended to modify and add the following (which shall be incorporated alphabetically):

(3) CHANNEL: A natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.

(7) DITCH: A man-made, open drainageway in or into which excess surface water or groundwater from land, stormwater runoff, or floodwaters flow either continuously or intermittently.

(16) EPHEMERAL STREAM: A feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

(21) INTERMITTENT STREAM: A well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

(22) MAJOR WATERSHED VARIANCE: A variance from the minimum statewide watershed protection rules that results in the relaxation by a factor

greater than five percent of any ~~buffer,~~ density or built-upon area requirement under the high density option; any variation in the design, maintenance or operation requirements of a wet detention pond or other approved stormwater management system; or relaxation by a factor greater than 10 percent of any management requirement under the low density option**; any variance that pertains to activities that impact any portion of Zone 1 of a surface water buffer.**

(23) MINOR WATERSHED VARIANCE : A variance from the minimum statewide watershed protection rules that results in the relaxation by a factor of up to five percent of any ~~buffer,~~ density or built-upon area requirement under the high density option; or relaxation by a factor up to 10 percent of any management requirement under the low density option**; any variance that pertains to activities that impact any portion of Zone 2 of a surface water buffer.**

(24) MODIFIED NATURAL STREAM: means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

~~(22) PERENNIAL AND INTERMITTANT STREAMS: Those streams (and rivers), with associated lakes and ponds as indicated on the following:~~

~~a. One the most recent version of the United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographical map;~~

~~b. On the most recent version of the Soil Survey of Davidson County, Forsyth County, Guilford County, or Randolph County developed by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (formerly the USDA Soil Conservation Service); or~~

~~c. By other site specific evidence that indicates to the N.C. Divisions of Water Quality (DWQ) the presence of such waters not shown on either of these two maps or evidence that no actual stream or waterbody exists.~~

(27) PERENNIAL STREAM: A well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(28) PERENNIAL WATERBODY: A natural or man-made basin, including lakes, ponds, and reservoirs, that stores surface water permanently at

depths sufficient to preclude growth of rooted plants. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainage way (i.e., connected by surface flow to a stream).

(41) SURFACE WATERS: All waters of the state as defined in G.S. 143-212 except underground waters and wetlands.

SECTION 2.

Part 1.

Section 9-7-1(e), entitled Exemptions, shall be amended as follows:

(e) EXEMPTIONS

The following activities are exempt from the requirements of this Article; however, this exemption shall not be construed to permit uses prohibited in the underlying zoning district, or prohibited by this Article.

(1) Development on lots of record of less than 20,000 square feet existing on July 1, 1993 in all watersheds except Randleman Lake Watershed, where the effective date is January 1, 2000.

(2) Development on lots of record of less than 40,000 square feet existing on January 1, 2000, in the Downtown Area, which is shown on the High Point Watershed Map.

(3) Construction of one single-family dwelling and its accessory structure(s) on a zone lot provided it is located outside Watershed Critical Area (WCA) Tier 1 within the Oak Hollow Lake, City Lake and Oakdale Reservoir Watersheds or outside Watershed Critical Area (WCA) Tiers 1 and 2 within the Randleman Lake Watershed.

(4) The construction of one two-family dwelling and its accessory structure(s) on a zone lot in the Oak Hollow Lake, City Lake and Oakdale Reservoir Watersheds provided a sedimentation and erosion control plan is not required and provided it is located outside Watershed Critical Area (WCA) Tiers 1 and 2.

(5) Development on a zone lot in a non-water supply watershed that disturbs less than an acre.

(6) Replacement of existing built-upon area on a lot developed with a like or lesser amount of new built-upon area at the same location, or at a different location on the same zone lot if the Enforcement Officer has determined that equal or improved water quality will result.

(7) Existing development as defined by Section 9-2-2(b) of this Ordinance **existing on July 1, 1993 in all water supply watersheds except**

Randleman Lake Watershed, where the effective date is January 1, 2000, and in non-water supply watersheds, where the effective date is July 1, 2007.

Part 2.

Section 9-7-3(c), entitled *Surface Water Buffers*, shall be amended as follows:

(c) SURFACE WATER BUFFERS

(1) **Applicability: This Section applies to all development and activities within the jurisdiction, with the exception of activities conducted under the authority of the State, the United States, multiple jurisdictions or local units of government, and forest harvesting and agricultural activities. The NC Division of Water Quality shall administer the requirements of Rule 15A NCAC 02B .0250 and .0252 (Randleman Lake Water Supply Nutrient Strategy: Protection of Existing Riparian Buffers and Mitigation of Existing Riparian Buffers, respectively) for these jurisdictions and activities.**

(2) Perennial and Intermittent Surface Water Buffers Required: A surface water buffer shall be maintained with a minimum width as specified in Table 7-3-1 and measured landward from the normal ~~pool elevation~~ **water level** ~~of the water supply impoundment~~ **for lakes and ponds** and from the **top of** bank of each side ~~of~~ **for** perennial and intermittent streams~~, lakes and ponds~~. **Wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the surface water buffer but are regulated pursuant to 15A NCAC 02H .0506.** These waters are indicated on **either 1)** the most recent version of either the United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps**;** or **2)** the **hard copy** Soil Survey maps developed by the USDA Natural Resource Conservation Service**; or 3) a map approved by the Geographic Information Coordinating Council and by the NC Environmental Management Commission. Where the specific origination point of a perennial or an intermittent stream is in question, parties subject to this section shall request the Enforcement Officer to make a determination in accordance with Rule 15A NCAC 2B 0250(4)(b).** ~~In addition, other site specific evidence may indicate to the NC Division of Water Quality the presence of waters not shown correctly on either of these two maps. Where these two maps show waters where no actual stream or waterbody exists, or where waters exist that are not shown on these maps, a developer may submit site specific evidence in support of such claim to the Technical Review Committee. If the Committee determines that a discrepancy exists, the evidence may be submitted to the NC Division of Water Quality for a determination in water supply watersheds. For surface waters in non water supply watersheds, the Committee will use the maps referenced above or a~~

~~classification study in accordance with the U.S Army Corps of Engineers or the N.C. Division of Water Quality methodology to determine stream classification. All surface water buffers shall be depicted as provided for in the "Guidebook of Standards and Practices for Development".~~

TABLE 7-3-1
MINIMUM SURFACE WATER BUFFER WIDTH REQUIREMENTS

Classification	Low Density[1] Development		High Density Development[2]		
Perennial Surface Waters (Streams, Lakes and Ponds)	50 feet		100 feet		
	Zone 1 30 feet	Zone 2[3] 20 feet	Zone 1 30 feet	Zone 2[3] 20 feet	Zone 3 50 feet
Intermittent Surface Waters (Streams, Lakes and Ponds)	50 feet		50 feet		
	Zone 1 30 feet	Zone 2[3] 20 feet	Zone 1 30 feet	Zone 2[3] 20 feet	

1. Low Density Development is development that is equal to or less than two dwelling units per acre or 24% built-upon area in all watersheds except Randleman. Low Density Development in Randleman watershed is development that is equal to or less than one dwelling unit per acre or 12% built-upon area.
2. High Density Development is development that is greater than two dwelling units per acre or 24% built-upon area in all watersheds except Randleman. High Density Development in Randleman watershed is development that is greater than one dwelling unit per acre or 12% built-upon area.
3. See Section 9-7-3(d) for additional buffers where surface waters abut moderate to steep slopes.

(3) Exemption Based on On–site Determination: When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, the affected party may submit a stream determination request to the Enforcement Officer. Upon request, the Enforcement Officer shall make an on-site determination. The Enforcement Officer may also accept the results of site assessments made by other qualified parties. Any disputes over on-site determinations shall be referred to the Director of the N.C. Division of Water Quality (DWQ) in writing. A determination by the Director of the DWQ as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of N.C.G.S. 150B. Surface waters that appear on the maps shall not be subject to these buffer requirements if a site evaluation reveals any of the following cases:

a. Ditches and manmade conveyances, to include manmade stormwater conveyances, other than modified natural streams, unless the ditch or manmade conveyance delivers untreated

stormwater runoff from an adjacent source directly to an intermittent or perennial stream.

b. Areas mapped as intermittent streams, perennial streams, lakes, ponds, or estuaries on the most recent versions of the United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps, hard-copy soil survey maps, or other EMC approved stream maps where no perennial waterbody, intermittent waterbody, lake, pond or estuary actually exists on the ground.

c. Ephemeral streams.

d. Ponds and lakes created for animal watering, irrigation, or other agricultural uses that are not part of a natural drainage way that is classified in accordance with 15A NCAC 02B .0100. Ponds are part of the natural drainage way when they are hydrologically connected (i.e. the pond is fed by an intermittent or perennial stream) or when they have a direct discharge point to an intermittent or perennial stream.

(4) Exemptions for Existing Development and Activities: Existing development that was present within a surface water buffer on the effective date the surface water buffer requirements were established is allowed to continue and is exempt from the requirements of Section 9-7-3(c)to the extent specified as follows:

a. The exemption of existing development and uses includes but is not limited to existing agriculture, buildings, facilities, ground mounted equipment, utility lines, on-site sanitary sewage systems, maintained lawns and uses any of which involve either specific, periodic management of vegetation or displacement of vegetation by structures or regular activity.

b. Only the portion of the buffer that contains the footprint of the existing development is exempt.

c. Activities necessary to maintain existing development are allowed provided the site remains similarly vegetated, no impervious surface is added within Zone 1 or 2 of the surface water buffer where it did not previously exist, and diffuse flow is maintained.

d. Grading and revegetating of Zone 2 is allowed for existing development upon review and approval of the Technical Review

Committee provided the health of the vegetation in Zone 1 is not compromised, the ground is stabilized, and the existing diffuse flow is maintained.

e. In addition, projects or development specified in 15A NCAC 02B .250 (6)(b) may be determined to be exempted in accordance with the requirements of that Section.

f. The exemption to the buffer requirements shall cease when the existing development or use changes to another permissible or non-exempt use. Any new development or use shall be subject to the surface water requirements.

(5) New Development and Activities: N.C. Administrative Code Section 15A NCAC 02B .0250(9) (Appendix – Surface Water Buffers Development & Activities Table) lists potential new development and activities within the buffer and categorizes them as exempt, allowable, or allowable with mitigation. All development and activities not categorized as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the surface water buffer or outside the buffer if the development or activity would impact the buffer, unless a variance is granted pursuant to Section 9-9-11 of this Ordinance, Watershed Variances. Watershed development plan approval, as provided for in Section 9-7-3(c)(9) is required for all new development and activity that is not prohibited. Such an approved plan shall constitute written authorization for uses that are allowable or allowable with mitigation, and a statement to that effect shall be included on the approved plan. The requirements for each category are as follows:

a. Exempt.
Development and activities designated as exempt are permissible without authorization by the Technical Review Committee provided that they adhere to the limitations of the activity as defined in Appendix 11, the Development and Activities Table. In addition, exempt development and activities shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable, including construction, monitoring, and maintenance activities.

b. Allowable.
Development and activities designated as allowable may proceed provided that there are no practical alternatives to the requested development or activity pursuant to Section 9-7-3(c)(10) of this

Article. This includes construction, monitoring, and maintenance activities.

c. Allowable with Mitigation.
Development and activities designated as allowable with mitigation may proceed provided that there are no practical alternatives to the requested development or activity pursuant to Section 9-7-3(c)(10) of this Article and an appropriate mitigation strategy has been approved pursuant to Section 9-7-3(c)(11).

(6) Buffer Zones: Required surface water buffers consist of two or three zones depending on the density of development and stream classification, as shown in Table 7-3-1. Zone 1 shall be the first 30 feet landward from the top of the stream bank or normal water level of other water bodies on all sides of the surface water **measured horizontally on a line perpendicular to a vertical line marking the top of the bank**. Zone 2 shall begin at the outer edge of Zone 1 and extend landward a minimum of 20 feet **as measured horizontally on a line perpendicular to the surface water**. **The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.** Zone 3 shall begin at the outer edge of Zone 2 and extend landward 50 feet **as measured horizontally on a line perpendicular to the surface water**. Zones 1 and 2 shall be undisturbed except as allowed in this Section. Zone 3 can be disturbed but must remain vegetated. Refer to Section 9-7-3(d) for additional surface water buffers to protect steep slopes bordering streams. Such additional buffers would be added to Zone 2.

~~a. Exemption: The following waterbodies and land uses are exempt from the surface water buffer requirements:~~

~~Ditches and manmade conveyances, other than modified natural streams which under normal conditions do not receive drainage from tributary ditches, canals or streams, unless the ditch or manmade conveyance delivers runoff directly to state-classified waters;~~

~~Ponds and lakes created for animal watering, irrigation or other agricultural uses that are not a part of a natural drainageway that is classified;~~

~~Water dependant structures provided that they are located, designed, constructed and maintained to provide maximum nutrient removal, to have the least adverse effects on aquatic life and habitat and to protect water quality; and~~

~~Horticultural or silvicultural practices to maintain the health of individual trees and removal of individual trees which are in danger of causing damage to dwellings, other structures or the stream channel;~~

~~however, other selective cutting of individual trees is not exempted and is not an allowed activity.~~

a. Zone**s** 1 **and 2**

1. ~~The following practices and activities are prohibited:~~

~~i. Land disturbing activities and placement of fill other than those allowed in Section 9-7-3(c)(2)a;~~

No new development **or land disturbing activities** shall be allowed in Zone**s** 1 **or 2** of the surface water buffer, except ~~that water dependent structures as defined in Section 9-2-2, road crossings, railroad crossings, bridges, airport facilities and utility crossings may be~~ **those activities and structures provided for in Appendix 11.** ~~where no practical alternative exists, as determined by the Technical Review Committee.~~ Activities that cross the stream shall be constructed as close to 90 degrees relative to the stream as practicable**, as specified in Appendix 11**. ~~Where these activities are~~ **A**llowed **activities** ~~they~~ shall minimize built-upon surface area, divert runoff away from surface waters and protect water quality to the maximum extent practical through the use of Best Management Practices. **Grading and revegetating for activities in Zone 2 is allowed providing that the health of the vegetation in Zone 1 is not compromised.**

~~i. New on-site sanitary sewage systems that use ground absorption;~~

~~ii. The application of fertilizer;~~

~~iii. Any activity which threatens the health and function of the vegetation including, but not limited to, application of chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.~~

2. The following ~~sheet~~ **diffuse** flow requirements must be met:

i. ~~Sheet~~ **Diffuse** flow must be maintained to the maximum extent practical through dispersing concentrated flow and re-establishment of vegetation to maintain the effectiveness of the surface water buffer.

ii. Concentrated runoff from the new ditches or manmade conveyances must be dispersed into ~~sheet~~ **diffuse** flow before the runoff enters zone 2 of the surface water buffer. Existing ditches and manmade conveyances are exempt from this requirement; however, care shall be taken to minimize pollutant loading through these existing ditches and manmade conveyances from fertilizer application or erosion.

iii. Periodic corrective action to restore ~~sheet~~ **diffuse** flow shall be taken by the landowner if necessary to impede the formation of erosion gullies that allow concentrated flow to bypass treatment in the surface water buffer.

iv. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation in new ditches.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow in new ditches or manmade conveyances shall be taken if necessary to impede the formation of erosion gullies; and

(c) No new stormwater conveyances are allowed through the buffers except for those specified in Appendix 11, addressing stormwater management ponds, drainage ditches, roadside ditches and stormwater conveyances.

~~b. Zone 2~~

~~1. The following practices and activities are prohibited:~~

~~i. No new development shall be allowed in Zone 2 of the surface water buffer, except those allowed in Zone 1 and stormwater management facilities, utility construction and maintenance corridors, stream restoration projects, stream gauging, water wells, passive recreation facilities such as boardwalks, paved greenway trails, pathways and historic preservation and archaeological activities may be allowed where no practical alternative exists, as determined by the Technical Review Committee. Where these activities are allowed they shall minimize built-upon surface area, divert runoff away from surface waters and protect water quality to the maximum extent practical through the use of Best Management Practices;~~

~~ii. New on-site sewage systems that use ground absorption;~~

~~iii. Any activity which threatens the health and function of the vegetation including, but not limited to, application of chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.~~

~~2. The following sheet flow requirements must be met:~~

~~i. Sheet flow must be maintained to the maximum extent practical through dispersing concentrated flow and re-establishment of vegetation to maintain the effectiveness of the surface water buffer;~~

~~ii. Concentrated runoff from new ditches or manmade conveyances must be dispersed into sheet flow before the runoff enters Zone 2 of the riparian area. Existing ditches and manmade conveyances are exempt from this requirement; however, care shall be taken to minimize pollutant loading through these existing ditches and manmade conveyances from fertilizer application or erosion;~~

~~iii. Periodic corrective action to restore sheet flow shall be taken by the landowner if necessary to impede the formation of erosion gullies that allow concentrated flow to bypass treatment in the surface water buffer.~~

b. Zone 3: Zone 3 is required for all high density development. Zone 3 may be disturbed, but it must remain vegetated. The following practices and activities are prohibited in Zone 3:

1. No new development shall be allowed in Zone 3 of the surface water buffer, except those **developments and activitie**s allowed in Zone**s** 1 **and 2** ~~and stormwater management facilities, utility construction and maintenance corridors, stream restoration projects, stream gauging, water wells, passive recreation facilities such as boardwalks, paved greenway trails, pathways and historic preservation and archaeological activities may be allowed where no practical alternative exists, as determined by the Technical Review Committee~~. **where the Technical Review Committee makes a no practical alternatives determination**. ~~Where these~~ **Allowed** activities ~~are allowed they~~ shall minimize built-upon surface area, divert runoff away from surface waters and protect water quality to the maximum extent practical through the use of Best Management Practices New Lots in the Surface Water buffer;

~~2. New on-site sewage systems that use ground absorption;~~

~~3. Any activity which threatens the health and function of the vegetation including, but not limited to, application of chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.~~

(7) Channelization: Channelization of perennial or intermittent streams shall be prohibited, except for access crossings, erosion control devices and runoff control devices.

(8) New Lots in the Surface Water Buffer: To the extent practical, no new single-family or two-family residential lots shall be created which are entirely or partly contained within the surface water buffer.

(9) Watershed Plan Approval: The Technical Review Committee shall approve a watershed development plan only if the plan proposes to avoid impacts to surface water buffers defined in Section 9-7-3(c) of this Ordinance, or where the plan proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

(a) Determined the activity is exempt from requirements of this Ordinance;

(b) Received a determination of no practical alternatives for activities in Zone 3 on the approved watershed development plan from the Technical Review Committee pursuant to Section 9-7-3(10) of this Article;

(c) For uses designated as Allowable with Mitigation in the Development and Activities Table in Appendix 11 received approval of mitigation plan pursuant to Section 9-6-3(c)(11) of this Ordinance; or

(d) Received a variance pursuant to Section 9-9-11.

(10) Determination of No Practical Alternatives

(a) Applicants undertaking development or activities designated as allowable or allowable with mitigation shall submit a watershed development plan with a request for a no practical alternatives determination to the Technical Review Committee. The applicant shall certify that the project meets all the following criteria for a determination of no practical alternatives:

1. The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality;
2. The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality; and
3. Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) The applicant shall submit a watershed development plan containing at least the following information on a form supplied by the Planning and Development Department in support of their assertion of no practical alternatives determination:

1. An explanation of why this plan for the development or activity cannot be practically accomplished, reduced or

reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and

2. Plans for any best management practices proposed to be used to control the impacts associated with the development or activity.

(c) Within 60 days of a submission that addresses Section 9-7-3(c)(10)b. , the Technical Review Committee shall review the entire project and make a finding of fact as to whether the criteria in Section 9-7-3(c)(10)a. of this Article have been met. A determination of no practical alternatives shall result in issuance of a certification on the approved watershed development plan. Failure to act within 60 days shall be construed as a finding of no practical alternatives and a certification on the watershed development plan shall be issued to the applicant unless one of the following occurs:

1. The applicant agrees, in writing, to a longer period;
2. The Technical Review Committee determines that the applicant has failed to furnish requested information necessary to make a decision;
3. The final decision is to be made pursuant to a public hearing; or
4. The applicant refuses access to its records or premises for the purpose of gathering information necessary for the Technical Review Committee to make a decision.

(d) The Technical Review Committee may attach conditions to the determination of no practical alternatives that support the purpose, spirit and intent of this Ordinance.

(11) Mitigation: Mitigation in accordance with the requirements of 15A NCAC 02b .0252 shall apply to persons who wish to impact a surface water buffer buffer when one of the following applies:

(a) A person has received authorization pursuant to Section 9-7-3(c)(10) of this Article for a proposed development or activity that is designated as allowable with mitigation; or

(b) A person has received a variance pursuant to Section 9-9-11 of this Ordinance and is required to perform mitigation as a condition of a variance approval.

(12) Surface Water Buffer Variances: These variances pertain to Prohibited Uses or Activities in the surface water buffer. There are two types of variances from the surface water buffer requirements of this Article, as follows:

(a) A major variance is any variance that pertains to activities that impact any portion of Zone 1.

(b) A minor variance is any variance that pertains to activities that impact any portion Zone 2 of a surface water buffer.

(13) Appeals: Appeals of determinations of no practical alternatives by the Technical Review Committee shall comply with Section 9-9-11 of this Ordinance. Appeals pursuant to the requirements of Section 9-7-3(c)(1), which applies to activities conducted under the authority of the State, the United States, multiple jurisdictions or local units of government, and forest harvesting and agricultural activities, shall be referred to the Director of the N.C. DWQ for review, as provided for in N.C.G.S. 150B Articles 3 and 4.

Part 3. That Section 9-7-10(d) be amended as follows:

(d) ~~WATERSHED VARIANCES~~ RECORD KEEPING

The Enforcement Officer shall keep a record of all watershed variances**, stream determinations and determinations of no practical alternatives**. This record shall be submitted for each calendar year to the North Carolina Division of Water Quality on or before January 1 of the following year and shall provide a description of each project receiving a variance**, stream determination or determination of no practical alternatives** and the reasons for granting ~~the variances~~ **them**.

SECTION 3. Section 9-9-11(c), entitled Minor Variances, and Section 9-9-11(d) entitled Major Variances, shall be amended as follows:

(c) MINOR VARIANCES

The Technical Review Committee shall review and decide requests for minor variances to the standards and restrictions pertaining to Watershed Protection. In order to approve a requested minor variance, the Technical Review Committee shall make findings of fact showing that:

(1) There are practical difficulties or unnecessary hardships that would **prevent compliance with** ~~result from carrying out the strict letter of~~ this Ordinance. **Variance requests shall be evaluated in accordance with all of the following:**

a. The hardship results from application of this Ordinance to the property rather than from other factors such as deed restrictions or other hardship;

b. The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, such that

compliance with the provisions of this Ordinance would not allow reasonable use of the proerty;

c. **The applicant did not cause the hardship by knowingly or unknowingly violating this Ordinance;**

d. **The hardship is rare or unique to the applicant's property;**

e. **If the applicant complies with the provisions of this Ordinance, the applicant can secure no reasonable return from, nor make reasonable use of, the applicant's property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the Technical Review Committee shall consider whether the variance is the minimum possible deviation from the terms of this Ordinance that shall make reasonable use of the property possible;**

(2) The variance is in harmony with the general purpose and intent of this Ordinance and preserves its spirit; and

(3) The granting of the variance assures the public safety and welfare and does substantial justice.

The Technical Review Committee may attach conditions to the minor variance approval that support the purpose of this Ordinance. In addition, in the case of water supply watersheds, the City shall notify and allow a reasonable comment period for all other local governments having jurisdiction in the applicable designated watershed and the entity using the water supply for consumption where the minor variance is being considered.

(d) MAJOR VARIANCES

Requests for major variances to the standards and restrictions pertaining to Watershed Protection shall be to the N.C. Environmental Management Commission (EMC), following review and favorable recommendation by City Council and after review and recommendation by the Technical Review Committee in accordance with the procedure set forth in 9-9-11(c). The major variance request shall be forwarded to the EMC with a report containing the findings of fact for City Council's favorable recommendation, conclusions of law, a recommended decision, recommended conditions and a record of the Council's hearing of the request. Requests for major variances that do not receive a favorable recommendation shall be deemed denied. ~~and shall not be forwarded to the EMC.~~

APPENDIX 11

Surface Water Buffers

SURFACE WATER BUFFERS

Development and Activities Table
15A NCAC 02B .0250(9)

This table, 15A NCAC 02B .0250(9), sets out potential new development and activities within the surface water buffer and categorizes them as exempt, allowable, or allowable with mitigation. All uses not categorized as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the surface water buffer or outside the buffer if the development or activity would impact the buffer, unless a variance is granted pursuant to Section 9-9-11 of the city of High Point Development Ordinance, Watershed Variances. The requirements for each category are given in Section 9-7-3(c)(5) of the Development Ordinance. Terms used in this table, including access trails, airport facilities, dbh, development, greenway/hiking trails, high value tree, shoreline stabilization, stump diameter, temporary road and tree are defined in 15A NCAC 02B .0250 (2).

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities: • Pedestrian access trails that are restricted to the minimum width practicable and do not exceed 4 feet in width of buffer disturbance, and provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the riparian buffer • Pedestrian access trails that exceed 4 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this Rule or impervious surface is added to the riparian buffer	X	X	
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer • Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)[1]		X X	X
Archaeological activities: • In Zones 1 and 2 and are designed, constructed and maintained to provide the maximum sediment removal and erosion protection, to have the least	X		

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical.			
Bridges		X	
Canoe access provided that installation and use does not result in removal of trees as defined in the Rule and no impervious surface is added to the buffer.	X		
Dam maintenance activities: • Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of the existing dam or those covered under a U.S. Army Corps of Engineers Nationwide Permit • Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under a U.S. Army Corps of Engineers Nationwide Permit	X	X	
Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers: • New stormwater flows to existing drainage ditches, roadside ditches, and stormwater conveyances provided flows do not alter or result in the need to alter the conveyance and are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • Realignment of existing roadside drainage ditches retaining the design dimensions, provided that no additional travel lanes are added and the minimum required roadway typical section is used based on traffic and safety considerations • New or altered drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater conveyances applicable to linear projects that do not provide a stormwater management facility due to topography constraints provided that other practicable BMPs are employed	X	X X	X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article is established adjacent to the new channel.	X		
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25linear feet or 2,500 square	X	X	

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer		X	X
Driveway impacts other than crossing of a stream or other surface waters subject to this Rule			X
Fences: • Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Rule	X	X	
Forest harvesting - see Item (16) of this Rule			
Fertilizer Application: One-time fertilizer application to establish vegetation	X		
Grading and revegetation in Zone 2 provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are revegetated with native vegetation	X		
Greenway / hiking trails: Designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical.		X	
Historic preservation: Designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical	X		
Maintenance access of modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical. The width and specifications of the travel way shall be only that needed for equipment access and operation. The travel way shall be located to maximize stream shading.		X	
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article are established adjacent to the relocated channels • Mining activities that are not covered by the Mining		X	X

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
Act or where new riparian buffers that meet the requirements or Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit	X		
Playground equipment: • Playground equipment on single family lots provided that installation and use does not result in removal of vegetation • Playground equipment installed on lands other than single-family lots or that requires removal of vegetation	X	X	
Ponds in natural drainage ways, excluding dry ponds: • New ponds provided that a riparian buffer that meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article is NOT established adjacent to the pond		X	X
Protection of existing structures, facilities and stream banks when this requires additional disturbance of the riparian buffer or the stream channel		X	
Railroad impacts other than crossings of streams and other surface waters subject to this Rule.			X
Railroad crossings of streams and other surface waters subject to this Rule: • Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer • Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Recreational and accessory structures: • Total footprint of gazebos and sheds in Zone 2, provided they are not prohibited under local water supply ordinance less than or equal to 150 square feet per lot • Total footprint gazebos and sheds in Zone 2, provided they are not prohibited under local water supply ordinance of more than 150 square feet per lot • Wooden-slatted decks (and associated steps) that are at least 8 feet in height and vegetation is not removed from Zone 1 for the installation and that it meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article		X X	X

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
• Wooden-slatted decks (and associated steps) that are not at least 8 feet in height or vegetation is removed from Zone 1 for the installation and that it meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article			X
Removal of previous fill or debris provided that diffuse flow is maintained and vegetation is restored	X		
Road crossings of streams and other surface waters subject to this Rule: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Road impacts other than crossings of streams and other surface waters subject to this Rule			X
Road relocation of existing private access roads associated with public road projects where necessary for public safety: • Less than or equal to 2,500 square feet of buffer impact • Greater than 2,500 square feet of buffer impact		X	X
Stormwater BMPs: • Wet detention, bioretention, and constructed wetlands in Zone 2 if diffuse flow of discharge is provided into Zone 1 • Wet detention, bioretention, and constructed wetlands in Zone 1		X	X
Scientific studies and stream gauging: • In Zones 1 and 2 if they are designed, constructed and maintained to protect water quality to the maximum extent practical.	X		
Streambank or shoreline stabilization		X	
Temporary roads provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that the tree planting may occur during the dormant season. A one time application of fertilizer may be utilized to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Section 9-7-3(c)(11) of this Article: • Less than or equal to 2,500 square feet of buffer disturbance • Greater than 2,500 square feet of buffer disturbance • Associated with culvert installation, bridge	X	X X	

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
construction or replacement			
Temporary sediment and erosion control devices provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Section 9-7-3(c)(11) of this Article: • In Zone 2 only provided ground cover is established within the timeframes required by the Sedimentation and Erosion Control Act and that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Section 9-7-3(c)(6)2 of this Article • In Zones 1 and 2 to control impacts associated with uses approved by the local government or that have received a variance provided that sediment and erosion control for upland areas is addressed to the maximum extent practical outside the buffer • In-stream temporary erosion and sediment control measures for work within a stream channel that is authorized under Section 401 and 404 of the Federal Water Pollution Control Act • In-stream temporary erosion and sediment control measures for authorized work within a stream channel	X X	X X	
Utility- Non-electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[4, 5] • Impacts other than perpendicular crossings in Zone 1 only[4, 5]		X	 X
Utility-Non-electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[4, 5]: • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40	X	X X	 X

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer			 X
Utility-Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[4, 5] • Impacts other than perpendicular crossings in Zone 1 [2,3,4, 5]		X	 X
Utility-Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule [2, 3,4, 5]: • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer	 X	 X	
Utility-Underground electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[2] • Impacts other than perpendicular crossings in Zone 1[1,4]	 X X		
Utility-Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer[3, 4, 5] • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer[3, 4, 5]	 X	 X	
Vegetation management: • Emergency fire control measures provided that topography is restored • Periodic mowing and harvesting of plant products in Zone 2 only • Planting vegetation to enhance the riparian buffer • Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised • Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life • Removal of individual trees that are dead, diseased or damaged. • Removal of poison ivy • Removal of understory nuisance vegetation as defined in: Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	 X X X X X X X X		
Vehicle access to water dependent structures			

Development and Activities	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
• Vehicular access roads leading to water dependent structures as defined in 15A NCAC 02B .0202, provided they do not cross the surface water and have a minimum practicable width not exceeding ten feet		X	
Water dependent structures as defined in 15A NCAC 02B .0202		X	
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Sections 9-7-3(c)(6) and 9-7-3(c)(6)2 of this Article is not established adjacent to the reservoir		X	X
Water wells • Single family water wells • All water wells other than single family water wells	X	X	
Wetland stream and buffer restoration • Wetland, stream and buffer restoration that requires DWQ approval for the use of a 401 Water Quality Certification • Wetland, stream and buffer restoration that does NOT require DWQ approval for the use of a 401 Water Quality Certification	X	X	
Wildlife passage structures		X	

[1] Provided that:

- Heavy equipment is not used in Zone 1
- Vegetation is not compromised in the portions of Zone 1 and Zone 2 that are not impacted
- Trees that are cut down are removed by chain
- No permanent felling of trees occurs in the protected buffers or in the streams
- Stump removal is performed only by grinding
- At the completion of the project the disturbed area is stabilized with native vegetation
- Zones 1 & 2 meet the requirements of (7) and (8) of this Rule.

[2] Provided that, in Zone 1, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternative evaluation by the local government, or the Director of DWQ for the cases involving activities listed in Section 9-7-3(c)(1) of this Article.

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Riprap shall not be used unless it is necessary to stabilize a tower.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.

- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

[3] Provided that poles or towers shall not be installed within 10 feet of a water body unless the local government or the Director for the cases involving activities listed in Section 9-7-3(c)(1) of this Article completes a no practical alternative evaluation as defined in 9-7-3(c)(10) of this Article.

[4] Provided that, in Zone 1, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the local government or the Director for the cases involving activities listed in 9-7-3(c)(1) of this Article, as defined in Section 70703(c)(10) of this Article.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

[5] Perpendicular crossings are those that intersect the surface water at an angle between 75 degrees and 105 degrees.